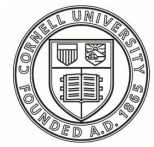

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Constraining Influences on the Decision to Participate in Training: The Importance of the Non-Work Environment

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Abstract

Models of individual training participation choice typically incorporate economic and psychological variables. This study argues that such models can be improved with the inclusion of work/family factors. Data were collected from a sample of non-management telecommunications employees. Results indicate that, even after controlling for economic and psychological influences, training participation intent is influenced by work/family factors. Further, these factors differentially affect men and women, with women facing greater work/family constraints to training participation than men. Finally, employer support for balancing home and job responsibilities positively influences participation.

Keywords

employee, organization, performance, pay, economic, variables, psychological, study, participation, men, women

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Working Paper 97-25

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CONSTRAINING INFLUENCES ON THE DECISION TO PARTICIPATE IN TRAINING: THE IMPORTANCE OF THE NON-WORK ENVIRONMENT

Working Paper 97-25

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CONSTRAINING INFLUENCES ON THE DECISION TO PARTICIPATE IN TRAINING: THE IMPORTANCE OF THE NON-WORK ENVIRONMENT

Models of individual training participation choice typically incorporate economic and psychological variables. This study argues that such models can be improved with the inclusion of work/family factors. Data were collected from a sample of non-management telecommunications employees. Results indicate that, even after controlling for economic and psychological influences, training participation intent is influenced by work/family factors. Further, these factors differentially affect men and women, with women facing greater work/family constraints to training participation than men. Finally, employer support for balancing home and job responsibilities positively influences participation.

To increase productivity and remain internationally competitive, U.S. firms have been experimenting since the 1980's with workplace transformation strategies. It has become clear during this period of experimentation that the development of a highly-skilled, flexible workforce is a critical element of a successful transformation strategy (Lynch 1992; Verma and Irvine 1992), and although U.S. firms generally underinvest in training (Lynch 1992), a variety of organizations including NUMMI, Xerox, Ford, and General Electric are choosing to follow competitive strategies based on the development of skilled human resources (Pfeffer 1994; Rosow and Zager 1988). Pfeffer underscored the importance of a skilled workforce in identifying training as a key mechanism through which U.S. firms should attempt to gain competitive advantage in a global economy (1994:20). The importance of utilizing human resources optimally is especially important as firms attempt to improve quality and service with fewer employees. In their research on downsizing and redesigning organizations Cameron, et. al. (1993) found that a common feature of best practice cases was an emphasis on the continuous development of human resources.

While much has been written about the need for greater investment in training in the U.S., and much is known about why firms invest in training and development (e.g., Lynch 1992; Bishop 1994), the factors that influence individual employee training choices are less well understood. This gap in our understanding of individual training and development choices merits attention because, ultimately, the success of a high-skill competitive strategy depends on employee willingness and ability to engage in on-going training activities. Often employers, academics and policy-makers assume that employees are eager to participate in training programs in order to enhance their skills and, therefore, their labor market opportunities. However, there is little evidence to support such assumptions. Initial research in this area suggests a number of factors, including characteristics of the work environment, that potentially facilitate and constrain employee participation in training and development activities (Maurer and Tarulli 1994; Noe and Wilk 1993; Kozlowski and Farr 1988).

While the conventional approach to modeling training choice is to focus on economic and psychological factors that influence such choice, I argue that individual career and training choices are constrained not only by economic and psychological influences, but by work and family factors as well, and that as a result of these constraints, women are less likely to pursue employment-enhancing career development strategies than men. To test this I compare the results of two separate regression models in order to compare the relative influence on training choice of human capital, self-efficacy, and work and family factors.

I focus on a large U.S. telecommunications company that has begun a long-term process of restructuring, designed to cut costs, improve customer satisfaction, and enhance its competitive

position. A major objective of this restructuring effort is to create a flexible, highly-skilled, committed workforce through an innovative retraining program sponsored by the employer and jointly administered by the unions representing its employees. The program, which culminates in an Associates Degree, was designed to prepare employees to function in a newly-created job at the highest non-management level within the organization. The new job combines the functions of a number of current technical craft jobs, and was created specifically to develop a core of employees capable of performing a much broader variety of skilled tasks than is currently possible. Direct costs of participating in the training program, including all materials, are paid by the employer. Training takes place on work time, with no reduction in pay. In addition, the benefits of participation are well-defined. Upon entering the program, those trainees who are not already at the top of the highest non-management pay range receive an immediate promotion to that rate of pay, and all trainees are promoted to the new job title. The actual amount of the initial pay increase is dependent upon the trainee's job title at the time he or she enters the program, and ranges from no increase for those who are already at the top of the highest salary range when they begin training to a nearly 45% increase for employees in some clerical and lower-level craft positions. All trainees receive subsequent pay increases at the half-way point of the program and upon completion of training. While this training program was developed with the explicit intent of eliciting broad-based employee involvement, early indications are that many eligible employees have not chosen to participate. Why is it that some individuals fail to take full advantage of this opportunity to enhance their careers and income growth?

THEORETICAL CONSIDERATIONS

Much of the existing research on training and skills acquisition has focused on outcomes. At the firm level, researchers have frequently measured payoffs from training in the form of higher productivity (Bishop 1994; Kochan and Osterman 1991). Studies of the impact of training on individuals have found positive effects on wages, career mobility and satisfaction (see Bishop 1994 for review).

While previous research has analyzed the payoffs to training, there is less research assessing the factors influencing individuals' decisions to engage in training. Unless individuals choose to actively engage in activities to update existing and acquire new skills, competitive strategies based on skilled, flexible employees may be jeopardized.

Recent work in this area has begun to focus on factors that potentially influence the decision to pursue development activities. One such study is an investigation by Noe and Wilk (1993) of the determinants of training participation. Following Peters and O'Connor (1980) who

suggested the importance of considering how work environment characteristics might constrain performance through their impact on motivation and ability, Noe and Wilk tested the influence of employee perceptions of workplace support for use of skills and training attendance, and working conditions that could inhibit attendance at training on participation in development activities. While the predicted mediating effect of these constraints on training-related attitudes and perceptions was not supported, the authors did find that situational constraints significantly influenced self-reported participation in development activities. Similarly, Maurer and Tarulli (1994) found that employee participation in voluntary development activity was positively influenced by a supportive work environment. I extend this area of research in a number of ways. First, I include factors from the non-work environment to assess their impact on the ability or willingness of individuals to participate in training. Prior exploratory work on this issue suggests the potential constraining effects of work and family characteristics (Clifton 1997). Specifically, I test the influence on training participation of family responsibilities, perceptions of work and family conflict, and support within the workplace for balancing the demands of work and family. A further extension of Noe and Wilk is my inclusion of measures of human capital in order to determine the impact of economic cost/benefit considerations in the individual decision to pursue training. Like Noe and Wilk and Maurer and Tarulli, I predict that self-efficacy perceptions are important determinants of training participation and, therefore, include them in my model. Finally, I include multiple occupational groups in my sample as did both Noe and Wilk and Maurer and Tarulli.

Human Capital

Human Capital Theory (HCT) provides insights into the role that economic factors play in the career development strategies chosen by employees. HCT states that individuals can choose between current work and investing in human capital to increase their future earning potential (Becker 1975). The more currently available time is devoted to work, the higher the current real income, but the lower the future earning potential. Participation in training and development activities is one important means of investing in human capital. The decision to invest in training involves an initial cost in the expectation of "..... a future payoff in terms of higher earnings, greater job satisfaction and a greater appreciation of nonmarket activities" (Ehrenberg and Smith 1988:293). An individual calculates the costs and expected benefits of training and determines whether the investment is worthwhile. These costs are comprised not only of the direct and indirect costs of participating in training (e.g., tuition, books, transportation), but also foregone earnings. Foregone earnings refer to the salary loss an individual experiences because of his or her choice to attend school rather than work.

While the direct costs of the training program studied here are borne by the company rather than trainees, participants may incur indirect training costs. Because the training takes place at community colleges rather than at the individual's worksite, some participants will incur additional transportation costs by virtue of their participation. In addition, the lengthier home/school commute and additional time outside of normal work hours needed for such school-related activities as homework, group projects, library research, etc., both create the potential for additional childcare costs for some trainees.

A further implication of HCT is that the decision to participate in development activities is influenced by current earnings since foregone earnings are a major component of the costs associated with training. Those who must make a significant financial sacrifice to attend school (i.e., high earners) are less likely than others to do so. Although training participants here experience no loss in regular salary and in most cases receive a salary increase, some will forfeit the potential to earn substantial overtime pay. Based on HCT the following relationships are hypothesized:

H1a: Those individuals for whom participation in the training program will entail additional transportation costs will be less likely than others to intend to participate.

H1b: Those individuals for whom participation in the training program will entail additional childcare costs will be less likely than others to intend to participate.

H1c: Earnings are negatively related to training participation intentions.

H1d: Those individuals who will lose opportunities to earn overtime pay because of participation in the training program will be less likely than others to intend to participate.

Finally, HCT implies a greater probability that returns to training will exceed costs for younger workers than for older workers since the number of years left in the labor market declines with age. This implication of HCT leads to the following hypothesis:

H1e: Age is negatively related to training participation intentions.

Although HCT is helpful in thinking about the career development choices employees make, it does not satisfactorily address all the factors which may be important in such decisions.

HCT focuses on measurable economic costs and outcomes. Non-economic factors have also been found to influence career development and training choice. For example, the consideration of psychological factors adds to the explanation of how individuals differ in their determinations of the costs and benefits associated with various career options available to them.

Self-efficacy

Self-efficacy, an important component of social learning theory, refers to the beliefs one holds about his or her capacity to perform a given behavior, particularly when faced with challenging or threatening situations (Bandura 1977). The initiation of a given behavior, as well as the amount and persistence of effort that is extended toward its performance, are related to self-efficacy perceptions. Individuals who hold high self-efficacy beliefs are more likely to initiate behavior and to persist in performing that behavior when faced with obstacles, making success more likely for them than for low self-efficacy individuals. Low self-efficacy individuals are more likely to give up when faced with obstacles so that they miss opportunities to master new behaviors, reinforcing their low self-efficacy.

There is a significant body of research indicating that self-efficacy beliefs influence how individuals adapt to changes in their work environment and manage their careers. Self-efficacy is related to the use of new technologies (Gist, Schwoerer and Rosen 1989), as well as to both occupational choice and vocational interests (Hackett and Betz 1981; Post-Kammer 1986; Post-Kammer and Smith 1985). Participation in training activities has also been shown to be influenced by self-efficacy (Maurer and Tarulli 11994; Noe and Wilk 1993). The training activity studied here involves enrollment in a college degree program, presumably a challenging, even threatening endeavor for some. In addition, the job for which this training prepares employees is at the highest technical level within the organization and represents not only a new job but a different occupation for some. It is likely, therefore, that beliefs about both academic and job performance capabilities will play a part in the individual decision to participate.

H2a: Self-efficacy beliefs are positively related to intent to participate in training.

Gender differences in self-efficacy perceptions regarding vocational interests, and occupational and academic choice have been reported. Females consistently hold lower self-efficacy than males for non-traditional academic course work and occupations (Betz and Hackett 1981; Lent and Hackett 1987; Wheeler 1983; Betz and Hackett 1983; Siegel, Galassi and Ware 1985). Layton (1984) found that women held lower self-efficacy beliefs for non-traditional than traditionally female occupations, and that these differences were related to the range of careers

they considered. The empirical evidence on gender differences in self-efficacy is especially relevant here in that the training program includes an emphasis on math and technical course work, and the job to which the training leads is highly technical in nature involving the maintenance of complex electro-mechanical and digital switches, and requires outside, sometimes physically demanding work in the installation and repair of equipment. Because participation in this training program provides non-traditional challenges for female employees, both in terms of academic preparation and eventual employment setting, gender differences in self-efficacy are predicted.

H2b: Females will report lower self-efficacy beliefs than males for both the training and the job.

H2c: Females will be less likely than males to intend to participate in training due to their lower self efficacy for both the training and the job.

Work and family

While both HCT and self-efficacy theory are helpful in understanding employee career decisions, they are based on rationality and freedom of choice. It is unlikely, however, that the pursuit of career enhancing strategies is free from constraints. One source of such constraints is the workplace. Peters and O'Connor (1980) argued the importance of considering work environment characteristics beyond the employee's control that can inhibit either the ability or motivation to achieve successful job performance. Others have focused on the influence of work environment characteristics on employee participation in development activities (Dubin 1990; Farr and Middlebrooks 1990; Kozlowski and Farr 1988). Noe and Wilk (1993) included work environment characteristics in their model of the determinants of participation in development activities, and found that employee perceptions of work conditions that inhibit attendance in development activities (e.g., lack of time) were significantly related to self-reported measures of development activities.

In addition to the constraining influence of work environment characteristics, it is reasonable to assume that factors in the non-work context have the potential to influence employee participation in development activities as well. For example, factors within an individual's home or family sphere have been shown to influence work-related attitudes and behaviors. Family responsibilities have been found to affect willingness to work long hours, travel extensively, accept greater job responsibilities, and seek promotions (Greenhaus 1988:36). Empirical support for the influence of non-work factors on career development decisions has been shown as well. In an

examination of the mid-career training decisions of nurses, Leiter, Dorward, and Cox (1994) found distinct facilitating and deterring influences on educational involvement, leading these researchers to suggest that family or community responsibilities might deter some individuals from development activities even when participation has been facilitated through the employer's provision of release time or financial support. Based on his exploration of the intersection of work and family roles, Googins stated, "Employees increasingly base their [job choices] not solely on career advancement and financial incentives, but also on the degree of fit with their family roles and responsibilities." (1991:51)

One way in which the non-work environment potentially constrains freedom of choice within the work domain is through the interaction that occurs between the work and family roles. Greenhaus and Beutell (1985) have proposed a model of this interaction in which they hypothesize that both time-based and strain-based conflicts arise from attempts to balance work and family responsibilities. Time-based conflict occurs when the time requirements of one role make it difficult to meet the expectations of another role. Number of hours worked, amount of time spent commuting to and from work, amount and frequency of overtime, and work schedule inflexibility all lead to increased work-family conflict (Keith and Schafer 1980; Bohen and Viveros-Long 1981; Pleck, Staines, and Lang 1980). Attempting to fulfill family responsibilities can create time-based conflict as well. Marriage, children, and spouse's employment pattern are all related to conflict (Herman and Gyllstrom 1977; Bohen and Viveros-Long 1981; Keith and Schafer 1980; Beutell and Greenhaus 1982).

Strain-based conflict occurs when the stress involved in one role makes it difficult to perform in the other role (Greenhaus and Beutell 1985). Such conflict can arise from ambiguity or conflict in the work role, low supervisory support, and physical and psychological demands of the job (Jones and Butler 1980; Pleck, et. al. 1980). A supportive spouse can decrease levels of work and family conflict (Holahan and Gilbert 1979), while spousal disagreement over appropriate roles and differing attitudes about the wife's employment are associated with greater conflict (Chadwick, Albrecht, and Kunz 1976; Eiswirth-Neems and Handal 1978).

While much of the work and family research focuses on the impact of work on the home life, the influence of family factors on work attitudes and behaviors is gaining more attention. For example, the conflict individuals experience in attempting to balance their work and home lives has been linked to decreased productivity, tardiness, absenteeism, turnover, and poor morale (Duxbury and Higgins 1991), and increased job stress (Judge, Boudreau, and Bretz 1994). The influence of family factors even extends to the career paths individuals pursue. Nieva and Gutek (1981) found that while a woman's decision to take a job is influenced by economic need, the number and ages

of her children are also important considerations in her decision. Similarly, the occupational and career goals of women are influenced by their marital and family goals (Betz and Fitzgerald 1987). A recent national study found that the work lives of both men and women are affected by family considerations. Almost two-thirds (60%) of study participants stated that "effect on personal/family life" was a very important factor in the decision to accept their current jobs (Gallinsky, Bond, and Friedman 1993).

Underlying the conceptualization of time-based conflict proposed by Greenhaus and Beutell (1985) is the notion that time is a limited resource and, therefore, time spent in one domain cannot be devoted to another. Spending time performing tasks associated with maintaining the family and home, for example, creates potential balancing difficulties because less time is available for work. Gutek, Searle, and Klepa (1991) have shown that as the number of hours spent on family activities increases, conflict between family and work increases as well. Caring for children, especially young children, increases the stress related to balancing home and family (Judge, et. al. 1994; Sekaran and Hall 1989; Voydanoff 1988; Schultz, Chung, and Henderson 1988). Responsibility for maintaining the home and family is time consuming and continues to fall more often to women than men (Reynolds and French 1988; Cowan 1987; Bird, Bird, and Scruggs 1984). Based on their investigation of gender differences in work and family conflict, Duxbury and Higgins conclude that "...redistribution of roles within the family to match increased role responsibilities outside the home has not yet occurred" (1991:60).

Based on the theoretical and empirical research on time-based conflict, the following relationships are predicted:

H3a: Hours spent performing family tasks are negatively related to intent to participate in training.

H3b: Women will spend more time performing family tasks than will men.

H3c: Women will be less likely than men to intend to participate in training because of the greater amount of time they spend on family tasks.

Both family structure and household employment status are likely to influence training participation through their influence on time- and strain-based conflict. Family structure has been shown to affect the extent to which individuals have difficulty meeting the demands of their jobs, with families with children, single parents, and dual-earner families experiencing more

difficulty than others (Kelly and Voydanoff 1985; Voydanoff 1988). The presence of children in the household is likely to increase the family demands on the individual, producing conflict between work and home. Work/family conflict has been related to the number and ages of children (Judge, et. al. 1994; Voydanoff 1988), with parents of young children frequently experiencing greater difficulty than parents of older children (Sekaran and Hall 1988; Beutell and Greenhaus 1982). Parenting has also been associated with high levels of stress, particularly for mothers (Baruch, et. al. in Googins 1991). In fact, in a comparison of conflict among individuals in a variety of family structures, Googins (1991) found that the greatest conflict is experienced by working wives with children. Similarly, Weingarten and Daniels (1978) found that parenthood affects male and female employees differently, with fathers becoming more involved and committed to their jobs and mothers more likely to accommodate their family responsibilities.

Members of two-earner families face unique pressures in attempting to coordinate the demands of at least two roles each - spouse and employee. This coordination of roles becomes especially difficult for dual-earner parents who share many of the same problems as other parents while trying to hold down two jobs. Partners in dual-earner families may also be faced with gender conflicts and career competition in the face of new, non-traditional roles at home and at work. It is usually not possible for both partners to subordinate the home role to the work role. Traditionally, however, males have been socialized to assume they can. Holahan and Gilbert (1979) found that high career aspirations were positively related to work/family conflict for women, but negatively related to conflict for men.

The empirical evidence suggests that family structure characteristics and employment status influence experienced conflict and work-related outcomes in the following ways:

H4a: Having children is negatively related to intent to participate in training.

H4b: Being married is negatively related to intent to participate in training.

H4c: Gender interacts with marital status so that married women are less likely to intend to participate in training than married men.

H4d: The interaction between being married, having children and belonging to a dual-earner family negatively influences intent to participate in training.

Finally, the structure of single-parent families presents unique challenges that may influence the desire or ability of members to participate in training. Because the vast majority

(90%) of single parents are female, the exploration of work/family difficulties faced by single parents inevitably focuses on single mothers. In addition to their small numbers, single custodial fathers actually appear to more closely resemble married fathers than single mothers in their behavioral and psychological responses to work and family demands. Single fathers do not, for example spend significantly more time than married fathers on childcare, and both single moms and married moms are far more likely than single or married dads to stay home with a sick child. Fathers, whether single or married, report low levels of depression and high levels of health and energy. The results for mothers, irrespective of marital status, are reversed (Googins 1991).

The potential impact of being a single mother on training participation is complex. On one hand it is possible that single mothers experience less difficulty balancing the demands of home and the job than married mothers because they do not need to juggle the role of spouse along with those of mother and employee. In fact, Googins (1991) reported that married mothers, not single mothers, spend the greatest amount of time on combined work and family responsibilities, implying that the presence of a husband does not reduce the workload of mothers. On the other hand, the increase in discretionary time available to single mothers is likely to be offset by their relatively worse financial position vis a vis married mothers. Almost 40% of working single mothers do not earn enough to put their families over the poverty line (Googins:181). Notwithstanding lower earnings, single mothers are likely to have fewer financial resources available to them. Googins (1991) found that in addition to their lower salaries, more than 50% of the single mothers responding to his survey reported that they received no financial assistance from the fathers of their children. Although individuals vary in the extent of their economic dependence on work (Brief and Aldag 1989), Gould and Werbel have argued that those with greater financial need will be more involved in work than those with lesser need because they may see high job involvement and compliance with organizational norms as important for maintaining financial stability (1983:318). Participation in activities designed to improve job-related skill and knowledge is one way that employees may indicate job involvement. Whether single mothers do in fact experience less difficulty balancing work and family than married mothers, and whether this effect is off-set by the greater financial demands they face, being a single mother should positively influence training participation intentions.

H4e: Being a single mother positively influences training participation intentions.

Attempting to meet the time demands of multiple roles and the structure and employment status of the family can lead to increased time-based and strain-based conflict. But perceptions of conflict are also important. Clearly, individuals facing similar family or job demands may experience varying degrees of conflict depending in part on the salience of each role (Greenhaus

1988). Although it is conceivable that the antecedents of objective and psychological conflict may differ, it is less likely that significant differences in their influence on behavioral outcomes exist. Based on the research on work-family conflict it is more reasonable to assume that perceived conflict will influence training decisions in much the same way as does objective conflict, leading to the following:

H5: Perceived conflict is negatively related to training participation intentions

If difficulty juggling home and job responsibilities inhibits participation in training, it is likely that factors that alleviate balance difficulty can positively influence career development decisions. One such factor is emotional or instrumental support provided by others. Many individuals are finding needed support at work, with an apparent trend for both men and women to rely on work-based social support networks (Googins 1991). In their study of the affects of family supportive organizational policies on work-family conflict, Thomas and Ganster (1995) found that supportive supervisors are associated with decreased perceptions of conflict by increasing the individual's perceptions of control. Interestingly, the positive influence of a supportive supervisor derived not only from its enhancement of perceived control, but by directly decreasing work-family conflict as well. Similarly, Judge, et. al. (1994) reported that male executives who worked in organizations emphasizing work and family balance experienced lower levels of work/family conflict than other executives. The relationship between workplace support and ability to balance home and job leads to the following hypothesis:

H6: A work environment that is perceived by the employee as supportive of attempts to balance work and family obligations positively influences training participation intentions.

DATA and METHODOLOGY

Sample

The sample consists of 179 non-management employees in the regulated business of a large U.S. telecommunications company who responded to a survey questionnaire mailed to their work sites.[1]

[1]This sample is a subset of a larger sample of non-management employees (N=549) that included individuals currently enrolled in the program as well as those who had dropped out of the program. The responses from these individuals were excluded from this analysis to reduce the possible contaminating effects of the training experience. The sample used here (N=179) is not significantly different demographically from the larger sample, however the response rate for the larger sample was 40%.

During 1995 approximately 50 on-site interviews were conducted with employees across various occupations and geographic locations. In addition, a series of interviews were held with both management and labor representatives involved in the organization's restructuring and training initiatives. The purpose of the field interviews was to directly assess the processes through which individuals make training and career development choices. These interviews and the theoretical considerations outlined above provided the basis for a detailed questionnaire designed to elicit information about factors that influence the choice of career development strategies. Questionnaires were mailed to a random sample of 600 employees, stratified by occupation (network; customer service; clerical), geography (upstate; downstate),and current training status (has formally applied but is not yet enrolled in the program; has neither formally applied nor ever been enrolled in the program). This stratification procedure was followed in order to ensure the sample included a sufficient number of respondents in across these groups. The survey response rate was 30%.

The sample is primarily white (85%), and is comprised of slightly more females (53%) than males. Twenty-nine percent are more than 45 years old, and most (57.5%) have worked for the company at least 10 years. Individuals employed in Network and Customer Service occupations each represent 35% of the total sample, with Clericals comprising 24% and the remaining 7% comprised of miscellaneous non-management occupations.

Dependent Variable

The dependent variable, INTENT TO PARTICIPATE, was measured using a 6-point scale on which respondents indicated the likelihood that they would participate in the training program (1=highly unlikely to 6=already applied).

Independent Variables

Work/family measures. Variables include family structure and employment measures shown to increase time- and strain-based conflict, and measures of family and job time demands. Following Greenhaus' (1988) recommendation to assess subjective as well as objective work-family conflict, I also measure perceptions of conflict.

Dummy variables for being married, being a parent, being a single parent, and being a parent in a dual-earner family were used to measure family structure and employment status. Interaction terms were used for being a wife (married x female) and being a single mother (single parent x female).

Two items were developed to assess the amount of time spent on family-related tasks. "Housework" is a scale of hours spent each week on household work, with 1=less than 10 hours to

5=more than 40 hours, in 10-hour increments. "Kidcare" is a scale of hours spent each week on childcare, with 0=none to 5=more than 80 hours, in 20 hour increments.

Experienced conflict between work and family responsibilities was assessed with two items, one measuring the extent to which balancing work and family is often difficult, and the other measuring the extent to which family members feel the respondent spends too much time at work. Both items are 5-point agreement scales (1= strongly disagree to 5=strongly agree), with higher values indicating greater levels of conflict.

Support for balancing work and family was measured in two ways. One item asked respondents to indicate how understanding the supervisor is when they need to be away from work to take care of family or personal matters. The other asked the extent to which the company helps employees achieve balance between work and family responsibilities. Both items are 4-point scales, with higher values representing greater levels of support.

Self-efficacy Measures. Two measures of self-efficacy were used, self-efficacy for the requirements of the training program, and self-efficacy for the technical job for which the training prepares workers. For both measures the strength of self-efficacy beliefs represented sums of respondents' confidence ratings (1=not at all confident to 10=completely confident) for successfully performing specific training- and job-related tasks. The self-efficacy for training scale was comprised of seven items assessing respondents confidence in their capabilities to perform in the training program. The internal consistency reliability estimate for this scale was .95. The self-efficacy for the job scale was comprised of three items assessing confidence in job performance capabilities. This scale had an internal consistency reliability estimate of .82. Variables were also included to assess the interactions between self-efficacy and gender (self-efficacy training x female; self-efficacy job x female).

Human Capital Measures. Age, education, and earnings were each measured using incremental categories. Age includes eight categories from 1=under 25 years to 8=56 years or older, in 5-year increments. Education is a measure of the highest level of education completed, from 0=some high school to 8=Masters degree or higher. Earnings is a measure of annual before tax earnings including overtime earnings, and includes eight categories ranging from 1=under $25,000 to 11=over $70,000. Foregone earnings were assessed using a scale of the average number of overtime hours worked each week, with 1=less than 1 hour per week to 5=more than 15 hours per week, in 5-hour increments. Two agreement scales were designed to investigate indirect costs of participating in the training program. One assessed the extent to which participation would require additional transportation costs. The other measured potential additional childcare costs.

Both scales assessed the extent of agreement that participation in training would require additional costs, with 1=strongly disagree to 5=strongly agree.

Control Measures. Gender, coded as 1=female, and race, coded as 1=white and 0=non-white served as control variables. In addition dummy variables indicating whether the respondent was in a customer service, clerical, network craft, or other job were used as controls for the possible influence of occupational category on the results.

RESULTS

Table 1 includes the descriptive statistics of the variables used in all analyses. The correlation's among the independent and dependent variables are presented in Table 2.

TABLE 1: Descriptive Statistics

VARIABLES	Mean	SD
1 Age	4.33	1.76
2 Education	4.21	1.46
3 Earnings	5.28	2.56
4 Wkly Overtime Hrs	2.14	1.22
5 Transportation Costs	2.78	1.26
6 Childcare Costs	2.03	1.24
7 Married	.68	.47
8 Wife	.33	.47
9 Single Parent	.07	.25
10 Single Mother	.06	.23
11 Dual-Earner Parent	.15	.36
12 Parent	.35	.48
13 Wkly Childcare Hours	1.13	1.37
14 Wkly Childcare HrsxFemale	.69	1.36
15 Wkly Housework Hours	1.90	.94
16 Wkly Housewrk HrsxFemale	1.03	1.22
17 Balance Difficulty	2.88	1.35
18 Time at Work	2.67	1.31
19 ER Balance Help	3.30	.86
20 Understanding Supvr	3.44	.74
21 Sex (Female)	.53	.50
22 Race (White)	.85	.36
23 Customer Service	.35	.48
24 Clerical	.23	.42
25 Other Occupation	.07	.26
26 SETraining (alpha .95)	56.37	15.25
27 SEJob (alpha .82)	25.65	6.20
28 SETrainingxFemale	29.58	29.78
29 SEJobxFemale	13.12	13.27
30 Participation Intent	4.50	1.82

Table 2
Correlation Matrix

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12
1 Age												
2 Education	-24***											
3 Earnings	26***	-10										
4 Wkly Overtime Hrs	10	-13	70***									
5 Transportation Costs	12	-19***	12	17**								
6 Childcare Costs	-09	-16**	-11	-07	46***							
7 Married	21***	-15**	19***	18***	06	09						
8 Wife	02	-14*	-35***	-22***	-06	12	49***					
9 Single Parent	11	01	-07	-03	06	08	-39***	-19***				
10 Single Mother	13*	01	-15**	-12	06	07	-35***	-17**	91***			
11 Dual-Earner Parent	03	-17**	-06	-06	06	20***	29***	37***	-11	-10		
12 Parent	19***	-18***	13*	10	17**	33***	21***	08	36***	33***	57***	
13 Wkly Childcare Hours	-14*	-12	-09	-03	14*	37***	28***	24***	14*	14*	45***	46***
14 Wkly Childcare Hrs*Female	-13*	-16**	-31***	-23***	08	32***	10	47***	18**	22***	47***	38***
15 Wkly Housework Hours	02	-04	-04	-12	22***	24***	13*	05	-02	00	15**	17**
16 Wkly Housewrk Hrs*Female	-02	-14*	-43***	-39***	06	17**	-08	54***	12	18***	21***	07
17 Balance Difficulty	-10	-07	16**	19***	07	22***	11	-01	02	-01	06	15**
18 Time at Work	05	-14*	43***	47***	15**	12	19***	-10	02	-03	-00	12
19 ER Balance Help	-08	08	-37***	-33***	-06	02	-08	17**	-07	-03	07	-05
20 Understanding Supvr	07	-11	-07	-08	08	06	07	-00	-07	-01	09	10
21 Sex (Female)	-06	-12	-53***	-39***	-06	08	-12	66***	16**	23***	18***	01
22 Race (White)	-02	-04	13*	09	06	-13*	12	-04	-20***	-17**	09	-05
23 Customer Service	-18***	34***	-18***	-09	-10	-05	-07	11	-01	-02	02	-12
24 Clerical	-04	-13*	-45***	-32***	-03	05	-15**	20***	12	15**	02	-02
25 Other Occupation	02	-13*	-07	-16**	13*	-02	06	08	01	03	06	02
26 SETraining (alpha .95)	-31***	42***	00	04	-07	-07	-05	-13*	-04	01	-04	-10
27 SEJob (alpha .82)	-17**	16**	17**	17**	-04	-20***	08	-17**	-17**	-15**	01	-05
28 SETraining*Female	-13*	-05	-49***	-35***	-07	03	-17**	57***	16**	22***	18***	00
29 SEJob*Female	-12	-09	-48***	-36***	-08	00	-15**	58***	10	16**	18***	-02
30 Participation Intent	-31***	36***	-12	-04	-24***	-16**	-11	-16**	05	09	-11	-02

TABLE 2 (cont'd.)
Correlation Matrix

VARIABLES	13	14	15	16	17	18	19	20	21	22	23	24	
1 Age													
2 Education													
3 Earnings													
4 Wkly Overtime Hrs													
5 Transportation Costs													
6 Childcare Costs													
7 Married													
8 Wife													
9 Single Parent													
10 Single Mother													
11 Dual-Earner Parent													
12 Parent													
13 Wkly Childcare Hours													
14 Wkly Childcare Hrs*Female	83***												
15 Wkly Housework Hours	39***	29***											
16 Wkly Housewrk Hrs*Female	31***	59***	51***										
17 Balance Difficulty	32***	23***	15**	-00									
18 Time at Work	15**	02	03	-17**	62***								
19 ER Balance Help	00	12	-07	13*	-28***	-40***							
20 Understanding Supvr	01	-02	-03	-00	-09	-11	35***						
21 Sex (Female)	13*	48***	04	80***	-07	-25***	26***	05					
22 Race (White)	-04	-05	-01	-03	11	13*	-11	-09	-11				
23 Customer Service		-01	04	-06	06	04	-13*	02	-15**	14*	-02		
24 Clerical	04	18***	-03	27***	-07	-19***	29***	15**	39***	-10	-40***		
25 Other Occupation		-03	02	12	14*	-07	-08	05	09	05	06	-20***	-15**
26 SETraining (alpha .95)	06	00	09	-03	02	-04	-06	-02	-04	05	23***	-14*	
27 SEJob (alpha .82)		-01	-14*	12	-11	03	00	-18***	-05	-16**	16**	07	-06
28 SETraining*Female	14*	46***	05	75***	-09	-25***	21***	04	94***	-07	18***	33***	
29 SEJob*Female	09	42***	05	75***	-10	-26***	19***	02	93***	-05	14*	38***	
30 Participation Intent	04	-05	01	-10	-06	-06	14*	-07	-03	-12	24***	-01	

TABLE 2 (cont'd.)
Correlation Matrix

VARIABLES	25	26	27	28	29	30
1 Age						
2 Education						
3 Earnings						
4 Wkly Overtime Hrs						
5 Transportation Costs						
6 Childcare Costs						
7 Married						
8 Wife						
9 Single Parent						
10 Single Mother						
11 Dual-Earner Parent						
12 Parent						
13 Wkly Childcare Hours						
14 Wkly Childcare Hrs*Female						
15 Wkly Housework Hours						
16 Wkly Housewrk Hrs*Female						
17 Balance Difficulty						
18 Time at Work						
19 ER Balance Help						
20 Understanding Supvr						
21 Sex (Female)						
22 Race (White)						
23 Customer Service						
24 Clerical						
25 Other Occupation						
26 SETraining (alpha .95)	-10					
27 SEJob (alpha .82)		-11	63***			
28 SETraining*Female	03	18***	03			
29 SEJob*Female	01	12	13*	96***		
30 Participation Intent		-21***	48***	41***	12	09

* p <.10; ** p <.05; *** p <.01

Reduced Model. The results of the model in which intent to participate in training was regressed on only the human capital, self-efficacy, and control variables, as well as the full model which includes the work and family variables, are both presented in Table 3. The results for the reduced model highlight the importance of both economic and psychological factors to participation intentions. As predicted, age, earnings, and anticipated additional transportation costs are all negatively associated with intentions. However, additional childcare costs did not have a significant effect on intentions, though the sign was in the hypothesized direction. In addition, the hypothesized relationship between overtime hours worked and training intentions was not supported. Finally, although no relationship between level of education and training intentions was hypothesized, education had a significant, positive influence on the intent to participate.

The reduced model results show that training participation intentions are further influenced by the beliefs about performance capabilities held by the individual. Self-efficacy for performing in the newly-created job has a highly significant, positive effect on intent to participate in training. While no effect for self-efficacy for training was found for men, the beliefs women hold about their capabilities for successful performance in training are positively related to their participation intentions. Men and women differ as well in the effect on training intentions of self-efficacy for the job. As noted, the effect for men is positive and highly significant. For women the effect is significant but less positive.

TABLE 3
Regression on Training Participation Intentions
(n=179)

Variables	Hypothesis	Reduced Model	Full Model
Constant		3.17	2.30
		(1.08)	(1.25)
Human Capital			
Age	(-)	- .15**	-.17***
		(.07)	(.07)
Education		.19**	.12
		(.09)	(.09)
Earnings	(-)	-.10*	-.10*
		(.08)	(.07)
Overtime	(-)	.02	-.04
		(.13)	(.13)
Transport Costs	(-)	-.15*	-.18**
		(.11)	(.10)
Childcare Costs	(-)	-.09	-.15*
		(.11)	(.11)
Self-efficacy			
SE-Training	(+)	-.01	-.00
		(.01)	(.01)
SE-Job	(+)	.13***	.10***
		(.04)	(.04)
SE-Train x Female		.06***	.05***
		(.02)	(.02)
SE-Job x Female		-.10**	-.05
		(.05)	(.05)
Controls			
Sex (% female)		-.80	-.80
		(1.06)	(1.15)
Race (% white)		-.78**	-.61*
		(.31)	(.31)
Customer Service		.15	.38
		(.34)	(.33)
Clerical		-.01	-.04
		(.42)	(.41)
Other Occupation		-1.00**	-.83*
		(.51)	(.49)
Work and Family			
Married	(-)		-.09
			(.46)
Wife	(-)		-.12
			(.57)
Single Parent			-1.93*
			(1.13)
Single Mother	(+)		2.30*
			(1.23)
Dual-Earner Parent	(-)		-.75**
			(.44)

TABLE 3 (cont'd)
Regression on Training Participation Intentions
(n=179)

Variables	Hypothesis	Reduced Model	Full Model
Parent	(-)		.81**
			.36)
Childcare Hours	(-)		.35*
			(.20)
Childcare x Female	(-)		.41**
			(.23)
Housework Hours	(-)		.20
			(.20)
Housework x Female	(-)		-.24
			(.27)
Balance Difficulty	(-)		-.15*
			(.11)
Time at Work	(-)		.30**
			(.12)
ER Balance Help	(+)		.54***
			(.15)
Understand Supvr	(+)		-.30*
			(.16)
R^2		.42	.54
Adjusted R^2		.37	.45
R^2 change			.12***

* p <. 10; ** p < .05; *** p < .01; two-tailed test when no hypothesized sign, otherwise one-tailed test.

Full Model. To determine the impact of non-work characteristics on training participation intentions, a model was run in which intentions were regressed on work and family variables as well as the human capital, self-efficacy, and control variables included in the reduced model. A comparison of the fit of the two models reveals that the full model better fits the data than does the reduced model (Adj. R^2=.45 v. Adj. R^2=.37). A test of the joint significance of the work and family variables is highly significant (p <.01). The improvement of both the fit and the overall significance

of the model with the addition of work/family factors is strong evidence that work/family factors play an important role in employee training choice.

The inclusion of work and family variables in the model did not greatly alter the influence of human capital factors or self-efficacy on training participation intentions. Some differences were found, however. Anticipated childcare costs are significant and negative in the full model, while no significant effect was found in the reduced model. In addition, the negative effects for both age and transportation costs are somewhat stronger in the full model than in the reduced model. The effect of education is no longer significant in the full model. Finally, the predicted negative relationship between overtime hours and training intentions was not supported in either model. The failure to find a significant effect for foregone earnings is likely due to the fact that few in this sample work extensive overtime, with nearly 65% of respondents working five or fewer hours of overtime in an average week. In summary, with the exception of Hypothesis 1d, all of the human capital hypotheses were supported by the data.

The effects for self-efficacy for both the training and the job remain unchanged under the full model. Similarly, the effects of the interaction of gender and self-efficacy for training do not differ between the two models. In contrast to the findings of the reduced model, however, no significant relationship between training intentions and the gender x self-efficacy for training variable was found with the full model. To test the hypothesis that females would report lower self-efficacy beliefs than males for both the training and the job (Hypothesis 2b), t-tests of the means comparing the self-efficacy beliefs of men and women was run. As predicted, women hold lower self-efficacy beliefs than men for the job ($t=-2.51$). However, no significant gender difference in self-efficacy for training was found.

The influence of time spent on family responsibilities is somewhat ambiguous. To determine whether the amount of time spent performing family tasks differs by gender (Hypothesis 3b), t-tests of the means comparing the hours women and men spend on childcare and housework were run. For the comparison of childcare hours, only men and women who are parents (N=63) were included. As predicted, women spend significantly more time caring for children than do men ($t=4.14$). However, the hours spent on housework each week do not differ significantly for men and women.

The prediction made in Hypothesis 3a, that hours spent performing family tasks negatively influence training participation intentions, was only partially supported. First, there are significant differences in the way in which childcare hours effect the training intentions of men and women. As hypothesized, time spent caring for children significantly decreases the training participation intentions of women. Childcare hours had the opposite effect on the participation intentions of

men. Even after controlling for marital status, men who spend more time caring for children are significantly more likely to intend to participate in the training. Finally, contrary to the hypothesized relationship, time spent on housework did not significantly influence training participation intentions. The failure to find a significant relationship may, however, be due to the metric used to assess housework hours. The response categories for "Housework" were quite large given that this sample is comprised of individuals who work full time, which may explain the low variance on this measure. Indeed, 79% of respondents reported their time spent on housework as falling in one of the two lowest response categories for this item (i.e., less than 10 hours/week, 10-19 hours/week).

The results for the influence of family structure and employment characteristics on training intentions were similarly complex. First, the predicted negative influence of being married on training participation intentions (Hypothesis 4b) was not supported. And, interestingly, rather than being a negative influence on participation intentions as predicted in Hypothesis 4a, having children has a significant positive impact. In a separate regression, a gender x parental status interaction term was included to determine whether gender differences exist in the effect of children on the dependent variable. No such differences were found and, because this interaction term was highly correlated with a number of other independent variables, it was dropped from further analyses. Hypothesis 4d, predicting a negative relationship between being a parent in a dual-earner family and participation intentions, was supported. Finally, as hypothesized, being a single mother has a positive influence on training participation intentions (Hypothesis 4e).

Partial support for Hypothesis 5, regarding the effect of perceived work/family conflict on training intentions, was found. Those who experience difficulty in balancing their homes and jobs express less positive participation intentions. However, the perception of the individual's family that he or she spends too much time at work is positively associated with intending to participate in training. Similarly, the hypothesized positive influence of a supportive work environment on the dependent variable (Hypothesis 6) was partially upheld. While the perception of the employer as supportive of attempts to balance work and family responsibilities has a highly significant positive impact on training intentions, an understanding supervisor negatively affects intent to participate.

DISCUSSION

The results presented here strongly suggest that factors in the non-work environment can constrain individuals from fully pursuing career development opportunities. Even after controlling for the effects of human capital and self-efficacy beliefs, work and family factors significantly influence training participation intentions. Further, the effects of these work and family factors on training intentions differ for men and women, with responsibility for childcare a primary differentiating influence. When the negative effect of childcare hours on participation intentions of

women is considered along with the positive finding for being a parent, it becomes clear that it is not simply the presence of children in the home that constrains participation of women. Rather it is the amount of time they spend caring for those children that keeps some women from pursuing training opportunities. These results are particularly detrimental to the career development of women. Women not only spend significantly more time caring for children than do men, the time they spend on childcare significantly decreases the likelihood that they will participate in training.

With the traditional model of the two-parent, one-earner household no longer the norm, this study underscores the importance of considering different family structures in attempting to understand the impact of the non-work environment on work behaviors and outcomes. Parents in dual-earner families appear to face greater constraints to participating in training, perhaps because of the multiple roles they must juggle. On the other hand, some have suggested that dual-earner partners engage in career competition with one another which results in additional conflict for the family (Holahan and Gilbert 1979). Some members of dual-earner families may decline participation in activities such as additional training in order to decrease career competition with their spouses. Finally, while being a single father has a negative impact on intent to participate in training, single mothers hold positive participation intentions. It is quite likely that this training program is viewed by these mothers as an avenue toward greater economic security. Although earnings were controlled in this study, I was unable to obtain other indicators of economic dependence such as the amount of child support received from the father that could provide additional insight to the decision-making process of single mothers.

In addition to time demands and family characteristics, I suggested that the individual's perceptions of work/family conflict would have a negative influence on his or her training participation intentions. The study findings for conflict perceptions were not, however, entirely expected. While experienced difficulty in balancing job and home responsibilities does constrain participation intentions, the family's belief that the individual spends too much time at work actually increases that employee's intention to take part in training. A number of plausible explanations for this finding exist. It is possible that those employees whose families already think they spend too much time at work, and who nonetheless intend to enter training are simply workaholics. Regardless of their families wishes they choose to focus their energies at work. Another possible explanation for this finding is that some employees may believe that participation in training will reduce the amount of time they will be away from home. Although of necessity individuals will be required to devote time to homework, study, etc. while in training, the ability to perform these "work-related" tasks at home may be viewed as more acceptable to the family. A third explanation is that some may view participation in training as an opportunity to escape from the stress of family life. In

her recent research, Arlie Hochschild (1997) suggests that many employees view the workplace not only as a haven from the chaos and conflict of home, but also as a source of social support often lacking in their non-work lives.

Finally, the workplace support employees receive in trying to balance their home and job responsibilities influences the career development choices they make. However, the impact of this support depends on its source. Company-level support has a very strong impact on training decisions. When the company is seen as being supportive of work/family issues, employees express significantly positive participation intentions. However, a supportive supervisor appears to slightly decrease intent to participate in training. It may be that those employees whose supervisors are understanding of their need to attend to family matters are unwilling to risk a good situation in order to enter the training program and begin a new job, possibly with a different supervisor.

Limitations

A possible concern with this study is that the significant relationships found may be artificially inflated due to common method variance effects, since the relevant data on which my findings are based come from a single source. However, there are a number of reasons to believe that common method variance is unlikely to have substantially affected the effects found for the work/family variables. First, many of the work/family items are objective in nature with little room for interpretation (i.e., marital and parental status; employment status of spouse; hours spent on family tasks). These items were not designed to measure underlying constructs, but rather to obtain factual information about family status and obligations. The four items assessing perceived conflict and support for balancing home and job were, however, developed from Likert-type scales and could be vulnerable to response bias. Following the procedure Bemmels (1995) outlined to assess potential bias, I ran a factor analysis with the four scales and the dependent variable using principal components with both varimax and quartimax rotations. No general work/family factor was found using either procedure, increasing my confidence that the significant relationships found for the work/family scale items were not the result of common method variance.

A second concern is the cross-sectional nature of this study which does not allow me to draw causal inferences regarding the relationships between the independent variables and training participation intentions.

Implications/Future Research

To successfully implement competitive strategies based on high-skill, high-commitment workforces, companies must rely on employees who are both willing and able to engage in necessary development activities. The training program discussed here represents a very positive

opportunity for employees to enhance their careers at the employer's expense. Nevertheless, it appears that many do not intend to take advantage of this opportunity in part because of the constraining influence of factors in their non-work environments. The implication of these findings for firms is that the non-work context matters to employees as they consider their own career development strategies. In addition, the evidence presented here indicates that employers can positively influence the training choices their employees make by supporting them as they attempt to balance the demands of home and job. Additional research is needed to increase our understanding of why the positive influence of support may differ depending on its origins within the workplace, (i.e., company- versus supervisor-level), and to investigate the relationship between the effects of workplace- and family-based support on training decisions.

This study is an attempt to move the research on training participation in new directions by including consideration of the influence of the non-work context. The interrelationship between the work and non-work settings is a new and evolving area of research. Future work in this area can be improved, and concerns about issues of common method variance and reliability of measures lessened by attempting to collect data from more than one source and by using multiple measures to assess work and family constructs.

Finally, longitudinal analysis of the constraining influence of the non-work environment on training participation decisions appears to be an important next step in order to build on the significant relationships found in this cross-sectional study.

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